



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 2002DE143 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP2003/013362 | International filing date (day/month/year) 27 November 2003 (27.11.2003) | Priority date (day/month/year) 10 December 2002 (10.12.2002) |
| International Patent Classification (IPC) or national classification and IPC C09B 67/12 | | |
| Applicant CLARIANT GMBH | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

| | |
|---|---|
| Date of submission of the demand 06 July 2004 (06.07.2004) | Date of completion of this report 01 September 2004 (01.09.2004) |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/013362

I. Basis of the report

1. With regard to the elements of the international application:*

the international application as originally filed
 the description:

pages _____ 1-47 _____, as originally filed
 pages _____ _____, filed with the demand
 pages _____ _____, filed with the letter of _____

the claims:

pages _____ 1-11 _____, as originally filed
 pages _____ _____, as amended (together with any statement under Article 19
 pages _____ _____, filed with the demand

the drawings:

pages _____ _____, as originally filed
 pages _____ _____, filed with the demand
 pages _____ _____, filed with the letter of _____

the sequence listing part of the description:

pages _____ _____, as originally filed
 pages _____ _____, filed with the demand
 pages _____ _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
 the language of publication of the international application (under Rule 48.3(b)).
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

contained in the international application in written form.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority in written form.
 furnished subsequently to this Authority in computer readable form.
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/fig _____

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/13362

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 1-11 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1-11 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1-11 | YES |
| | Claims | | NO |

2. Citations and explanations

1. The invention relates to a method for producing a pigment preparation based on a phthalocyanine pigment in two steps.

2. Reference is made to the following documents:

D1: US-A-4 313 766

D2: US-A-5 296 034

D3: EP-A-0 574 790

D4: DE 27 20 464 A

D5: WO 01/66650 A

3. Novelty

D1 describes a method for producing a phthalocyanine pigment preparation in which a crude phthalocyanine pigment is finely divided by dry milling and is then subjected to a finishing treatment in a mixture of an organic solvent and in the presence of a phthalocyanine pigment disperser (claim 1).

D2 describes a method for producing a crude phthalocyanine pigment preparation in which a crude phthalocyanine pigment is finely divided by wet milling and is then subjected to a finishing

treatment in a mixture of water and an organic solvent at high temperature and in the presence of a phthalocyanine pigment disperser (examples).

D3 describes a method for producing a phthalocyanine pigment preparation in which a crude phthalocyanine pigment is finely divided using special stirred ball mills (claim 1).

D4 describes a method in which a phthalocyanine pigment is subjected to a solvent treatment in the presence of a phthalocyanine sulphuric acid salt (claim 1).

D5 describes a method for producing a phthalocyanine pigment preparation in which a crude phthalocyanine pigment is finely divided by dry grinding and is then subjected to a finishing treatment in a solvent (claim 1).

A method for producing a phthalocyanine pigment preparation in which a crude phthalocyanine pigment is finely divided and is subjected to a finishing treatment in a mixture of water and an organic solvent at alkali pH, at increased temperature, and in the presence of at least one pigment disperser from the group of phthalocyanine sulphuric acids, phthalocyanine carboxylic acids, phthalocyanine sulphuric acid salts, phthalocyanine carboxylic acid salts, and phthalocyanine sulphonamide is not described in any document. The application therefore meets the requirements of PCT Article 33(2).

4. Inventive step

D2 constitutes the closest prior art. The problem to be solved by the present invention can therefore be seen as that of providing a novel, and if possible improved, method for producing a phthalocyanine

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International application No.

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pigment preparation. The applicant's solution consists in carrying out the finishing treatment at an alkali pH. The applicant shows in the examples that the pigment preparations of this invention have improved properties, more brilliance and improved colour strength as pigment preparations than when the finishing treatment is not carried out at an alkali pH. The method of the application has not been previously described in the prior art, nor can it be derived therefrom. The application therefore meets the requirements of PCT Article 33(3).